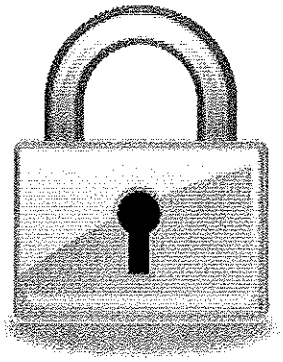
Safety Documentation



Control of Hazardous Energy (Lockout/Tagout)

Control of Hazardous Energy Program
(Lockout/Tagout)

Scope and Application

The Control of Hazardous Energy Standard at 29 CFR 1910.147 applies to the servicing and maintenance of machinery and equipment in which the unexpected startup or the release of stored energy could cause injury to employees. Even though federal and state OSHA Standards do not apply to Area Technology Center students, the requirements of the program shall apply to employees, students, and applicable outside service personnel.

The standard requires the adoption and implementation of practices and procedures to shut down equipment, isolate it from its energy source(s), and prevent the release of potentially hazardous energy while maintenance and servicing activities are being performed. It contains minimum performance requirements and criteria for establishing an effective program for the control of hazardous energy. However, facilities have the flexibility to develop lockout/tagout programs that are suitable for individual requirements.

Kentucky Amendments to the Federal Standard

803 KAR 2:309 Section 3(2) amended 29 CFR 1910.147(c)(2)(ii) to read: If an energy isolating device is capable of being locked out, the employer's energy control program under paragraph (c)(1) of this subsection (federal standard) shall utilize lockout.

803 KAR 2:309 Section 3(4) amended 29 CFR 1910.147(c)(3)(i) to read: When a tagout device is used on an energy isolating device which is incapable of being locked out, the tagout device shall be attached at the same location that the lockout device would have been attached, and the employer shall demonstrate that the tagout program will provide a level of safety equivalent to that obtained by using a lockout program. If tagout devices are used with energy isolated devices designed with the incapability of being locked, the tag attachment will be fastened at the same point at which the lock would have been attached.

Service and/or Maintenance-No Exposure to Hazard

The standard does not apply when employees are performing service or maintenance tasks that do not expose them to the unexpected release of hazardous energy.

Employees performing minor tool changes and adjustments and/or minor service activities during normal production operations that are routine, repetitive, and integral to the use of the equipment are not covered by the standard. The safeguarding provisions of the Electrical Safety and Machine Safeguarding Standards and other applicable general industry standards must be followed.

The standard does not apply while servicing or maintaining cord and plug connected electrical equipment. In this situation, hazards must be controlled by unplugging the equipment from the energy source. The electrical plug must be under the exclusive control of the employee performing the service and/or maintenance.

Servicing and/or Maintenance-Exposure to Hazard

If a servicing or maintenance activity such as lubricating, cleaning or unjamming the equipment takes place during production, the employee performing the service or maintenance may be subjected to hazards not a part of normal operations. Workers engaged in these operations are covered by the Control of Hazardous Energy Standard when:

- The employee must either remove or bypass machine guards of other safety devices resulting in exposure to hazards at the point of operation;
- The employee is required to place any part of his or her body in contact with the point of operation of the equipment; or
- The employee is required to place any part of his or her body into a danger zone associated with a machine operating cycle.

In the above situations, the equipment must be de-energized and lockout must be used or applied to the energy isolating devices.

In addition, when normal servicing tasks such as setting equipment up and/or making significant adjustment to machines do not occur during normal production operations, employees performing such tasks are required to lockout if they can be injured by unexpected energization of the equipment.

Control of Hazardous Energy Program

OSHA Standards require the establishment of a Control of Hazardous Energy Program. The program must ensure that before any employee performs service or maintenance where the unexpected energization, startup or release of stored energy could occur and cause injury, procedures are followed to isolate and make non-operational the equipment.

Appendix One contains the form Office of Career and Technical Education Lockout/Tagout Procedures with instructions. This form is to be used to identify items of equipment requiring lockout/tagout, the types of potential energy, procedures, and tracking.

Outside Personnel and Contractors

Whenever outside servicing personnel and contractors perform task covered by the Control of Hazardous Energy Standard, they must follow all the standard's requirements. The outside contractor or service personnel and the facility management must inform each other of the respective Control of Hazardous Energy Programs. Facility management must ensure that his/her employees understand and comply with the outside employer's energy control program.

Identifying Defective Equipment

Many large items of equipment have an isolation switch that will disconnect the electrical power. Also, a machine's master switch may have a lockout device. A lock and defect identification tag shall be placed on all isolation and control devices capable of accepting a lock. All locks and tags shall be placed in such a manner as to prevent the equipment from being energized.

Additional Information

This guidance document is only a summary of the federal and state OSHA requirements on this topic. If additional information is require on the control of hazardous energy, the Safety Coordinator can be contacted by e-mail.

Appendix One
Office of Career and Technical Education Lockout/Tagout Procedures

Instructions

School

Name of the Area Technology Center.

Program

Name of the program containing the equipment under the Control of Hazardous Energy Program.

Teacher

Name of the program instructor.

List of Machines or Equipment Covered by this Procedure

This is a list of machines and equipment that will require lockout if service and/or maintenance is performed by ATC employees. The OSHA Standard at 29 CFR 1910.147 and this guidance document shall be used to identify those items of equipment which will require lockout.

Identification shall be by type of machine and manufacturer.

Energy Types

List all sources of electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other energy used to operate the equipment.

Names of Stored Energy

List all sources of electrical, mechanical, hydraulic, pneumatic, chemical, thermal or other energy that could cause the unexpected energization, startup or release of stored energy during service or maintenance.

Methods Selected

List the procedures for the control of the stored energy including shutdown, equipment isolation, lockout, release of stored energy, and verification of isolation.

Names or Job Titles of Authorized Personnel

List the name(s) of the person(s) responsible for the adherence to the procedures in the program area (e.g. instructor) and any ATC personnel who will be working on the equipment.

Indicate Machine or Equipment

When a machine is shutdown, isolated, locked out, and/or had a release of stored energy, the date and time of the procedures and return to service are recorded on the form. Use the number from the list to identify the appropriate machine.

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Education and Workforce Development Cabinet

Office of Career and Technical Education

Lockout/Tagout Procedures

School: _____

Program: _____ Teacher: _____

Each program should have a list of equipment requiring Lockout/Tagout. The teacher should compile this at the beginning of the school year. (Attach additional page if required.) Duplicate the completed form and complete each time it is necessary to lockout or tagout any of the equipment listed. Keep completed forms on file.

The following machines and equipment fall under the requirements of 29 CFR 1910.147, the Control of Hazardous Energy (Lockout/Tagout). For this reason, appropriate lockout procedures must be performed each time servicing or maintenance is performed.

List of Machines or Equipment covered by this procedure:			
1.		6.	
2.		7.	
3.		8.	
4.		9.	
5.		10.	

(Indicate Machine or Equipment number from above list)

Date:		Time:		Of Lockout or Tagout
Date:		Time:		Returned to Service

Energy Types:
Names of Stored Energy:
Methods Selected:
Name of Authorized Personnel:

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Education Cabinet

Office of Career and Technical Education

Lockout/Tagout Procedures

School: _____

Program: _____ Teacher: _____

Each program should have a list of equipment requiring Lockout/Tagout. The teacher should compile this at the beginning of the school year. (Attach additional page if required.) Duplicate the completed form and complete each time it is necessary to lockout or tagout any of the equipment listed. Keep completed forms on file.

The following machines and equipment fall under the requirements of 29 CFR 1910.147, the Control of Hazardous Energy (Lockout/Tagout). For this reason, appropriate lockout procedures must be performed each time servicing or maintenance is performed.

List of Machines or Equipment covered by this procedure:			
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2.		7.	
3.		8.	
4.		9.	
5.		10.	

(Indicate Machine or Equipment number from above list)

Date:		Time:		Of Lockout or Tagout
Date:		Time:		Returned to Service

1.	Energy Types:	
2.	Names of stored energy and methods to dissipate or restrain:	
3.	Methods selected – Lockout or Tagout:	
4.	Names or job titles of authorized personnel: